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Lab work speeds plague detection

By Stephen Wampler

PUBLIC AFFAIRS

Disappearances of prairie dog colonies in northern Arizona often signal an outbreak of plague — even though tests have usually required seven to 10 days to confirm the disease's presence.

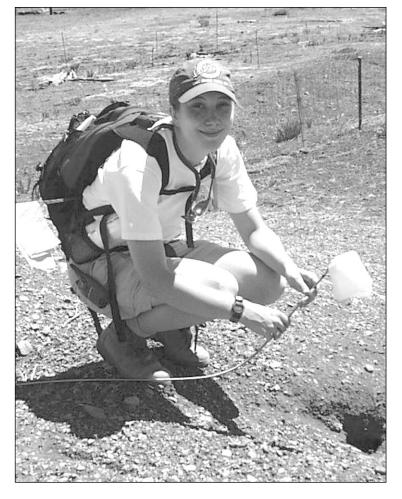
But no more. Last week, a team of Northern Arizona University researchers, using a DNA-based detection system developed by Laboratory biomedical scientists, confirmed the presence of plague within four hours.

The finding, by a team led by NAU microbiology professor and plague expert Paul Keim, represents the first time the LLNL system has been used to detect a public health disease in the environment.

"It's very exciting, and it made all the hard work we went through worthwhile," said Lab biomedical scientist Paula McCready. "We did a lot of analysis to make sure these DNA signatures were unique to Versinia poetic (the least of the leas

unique to Yersinia pestis (the bacteria that causes plague) and nothing else in the environment."

Working within NAI's Chemical and Biological National Security Program, Lab scientists have been developing genetic signatures for the past three years to rapidly detect the spread of infectious diseases or bioterrorist agents.



Jessica Girard uses a plumber's snake and a cloth saturated with CO² to attract fleas that may be carrying the bacteria that causes plague.

On May 24, their work bore fruit as Keim received pages and numerous voicemail messages from the Arizona Department of Health Services warning there was a possible outbreak of plague in Baderville, a small community of about 500 residents just northwest of Flagstaff.

"We were expecting an outbreak of plague,"

See PLAGUE, page 8

Tauscher comes to Lab to field employee questions on budget, energy crisis

By Ali Carrigan

NEWSLINE STAFF WRITER

Congresswoman Ellen Tauscher (D-Tassajara Valley) told Lab employees that their tax-refund check "is in the mail." Tauscher, who represents the Lab's congressional district, is in a position to know, as she spent part of her Memorial Day weekend in Washington voting for the tax relief bill.

Tauscher stopped at the Lab yesterday to field questions from employees on topics ranging from tax cuts to the California power crisis. Because the congresswoman sits on both the House Transportation and Infrastructure Committee and the House Armed Services Committee, she has been heavily involved with areas that affect Lab employees.

"We've been working with Gen. John Gordon (of the National Nuclear Security Administration) to get funding in the defense budget for issues that affect

See TAUSCHER, page 3

Remedy for access problems to employee survey Website

International Survey Research (ISR) is conducting the 2001 Employee Opinion Survey for the Laboratory. If you have already completed the survey, thank you.

Some employees have reported problems in accessing ISR's secure Website to take the survey online using Netscape Communicator. Netscape may crash or fail to connect to the survey site, and display a "memory access violation" error. The problem has to do with the level of encryption supported by the particular version of Netscape Communicator being used.

If you encounter this error, please use the following steps to correct the problem and access the Survey. Try them in order until you are able to obtain secure access to ISR's site.

See SURVEY, page 8

NIF gets a lift through high-tech transporters

By Sue Stephenson

PUBLIC AFFAIRS

If the Enterprise, Voyager and Defiant are moving about you and you're not lost in space on the set of a "Star Trek" television show, you must be in the laser bay of the National Ignition Facility (NIF). That's where three vehicles carry ultra clean canisters used to transport phone-booth-sized optical assemblies (the Line Replaceable Units, LRUs) and install them in the NIF laser system.

Made by AGV Products Inc. of Charlotte, N.C., these transporters are high-tech and highly intelligent forklifts. Guided by a computer-con-

trolled laser, they each weigh 29,000 pounds and can carry a canister LRUs weighing as much as 8,000 pounds. The transporters position the canisters, docking them within one millimeter and one-tenth of a degree rotation, very tight tolerances. The laser-guided transporters are able to move their forks front and back, side to side, and to rotate them on an angle, allowing them to insert the canisters into the Beampath Infrastructure System in the NIF.

The most complex automated guided vehicles ever built are bright yellow with red

See FORKLIFT, page 8



Steve Yakuma testing the transporter in manual mode.



Asian fare with flair

— *Page 2*



New chief for SAFE Program

— *Page 3*



Education opportunities

— Page 5, Insert



Lab community news

Weekly Calendar

Technical Meeting Calendar, page 4



There is a **power outage** scheduled from 7 a.m. Saturday until 3:30 p.m. on Sunday in Bldgs. 482 and 490. Both buildings will have partial power during

the outage, which is required to support the electrical distribution maintenance program. Contact: Mark Cardoza, 3-0490.



Students and visiting faculty members interested in attending the June 12 brown bag lunch with Director Emeritus

Edward Teller have until today to sign up. There are only 40 spots available for this event, so register now via the Web at http://education.llnl.gov/sbb or contact Sharice Tippens, 2-6480 or Dolores Lambert, 4-6783.

A representative from **Fidelity Investments** will be on-site to meet with employees June 6-7. Fidelity Investments are available to UC's 403(b) participants in addition to the UC-managed investment funds. Fidelity's program offers 403(b) participants more than 70 investment portfolios in five mutual fund categories. If you would like to learn more about Fidelity's plans, call the Fidelity Central Reservation System at 1-800-642-7131 to set up an appointment with the Fidelity representative. When calling, be sure to specify you are an LLNL employee.



Plant Engineering is holding its annual **Chili Cook-Off** from 11:30 a.m. to 1 p.m. lakeside by Bldg. 551E. The event features

food, music, prizes and fun. The cost of \$5 includes your choice of mild linguica or barbecued chicken, potato salad, chips, salsa, a drink, and of course, chili. If you would like to enter your chili in the contest, contact Florann Mahler, 2-9173. To buy tickets, call Amelia Regacho, 3-2807.



Friends of the Livermore Public Library are hosting a book talk by **Anne Marshall Homan, author** of "The Morning Side of

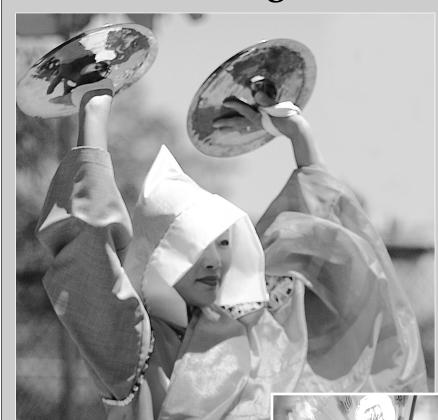
Mount Diablo," at 7:30 p.m. at the Civic Center branch of the Livermore Library. Her book provides an illustrated account of the Bay Area's historic Morgan Territory Road.



Broadcast Schedule

The **DDLS talk by Susan Solomon** of the National Oceanic Atmospheric Administration on "Ozone Depletion From Antarctica to Greenland," will be broadcast on Lab TV Channel 2 Thursday, June 7, at 10 a.m., noon, 2, 4, and 8 p.m., and Friday, June 8, at 4 a.m.

Celebrating Asian heritage



The Laboratory cele**brated Asian Pacific American Heritage** Month on May 24 with a festive lunch-time event featuring ethnic food, cultural diplays, traditional dances and music. Lab employees and their children turned out for the festival. The event was presented by the Asian **Pacific American** Council in association with the Affirmative **Action & Diversity** Program.

PHOTOS BY JACQUELINE McBride/TID







RETIREMENTS

Allen Levy

A retirement party will be held for Allen Levy deputy project manager for the NIF Project, at 11:30 a.m. on Friday, June 8, at Retzlaff Vineyards, 1356 S. Livermore Ave.

He is retiring July 1 after 24 years at the Lab. The lunch menu will feature a meat/cheese deli sandwich buffet, potato salad, and cookies and

Cost is \$15 and includes lunch, gift, tax and gratuity (drinks sold separately).

RSVP by June 6 to Corinne Ybarra, Bldg. 481, L-593, or Karla Knox-Stauffer, Bldg. 482, L-469. Checks should be payable to Corinne.

Light bulb fete tickets on sale

Advance discount tickets are still available at the LLESA office in Bldg. 415 for the June 8 Lightbulb Centennial barbecue and celebration to be held at Livermore Fire Station #6, 4550 East

The event will include three bands and a ceremony at 6 p.m. Tickets for the barbecue, which will run from 5 to 7 p.m., are \$3 for adults and \$1 for children under 12. There is a live webcam focused on the 100-year-old bulb, which can be seen on the Website at www.centennialbulb.org where more information can be found on the event.

Newsline

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Around the Lab



Former FBI agent named to lead Lab's SAFE program

By Jeffrey Morris

TECHNICAL INFORMATION DEPARTMENT

Former FBI Agent Terry D. Turchie will begin a new career as head of the Security Awareness For Employees (SAFE) Program on Monday.

Turchie will succeed Bill Cleveland, who has managed the SAFE Program since Nov. 1, 1993. During the transition, Cleveland has agreed to remain with the SAFE Program part time, serving as a counterintelligence officer.

Turchie recently retired from the FBI after 29 years. He brings to the Laboratory an extensive background in conducting and managing a wide variety of counterintelligence, counterterrorism and other investigations.

Turchie's latest assignment was at FBI headquarters in Washington, D.C., as deputy assistant director of the Counterterrorism Division. His duties included overall managerial responsibility for the FBI's efforts to pursue international terrorists and to coordinate crisis management planning for events such as the 2001 Presidential Inauguration. Turchie also was responsible for the



Terry Turchie

FBI's Domestic and International Terrorism programs, its weapons of mass destruction (WMD) efforts, the National Domestic Preparedness Office, and the National Infrastructure Protection Center.

From March 1999 to May 2000, Turchie was assigned to the FBI's San Francisco Field Division Office, where he managed all of the bureau's foreign counterintelligence, counterterrorism, and criminal cases in Northern California.

Turchie's experience also includes serving as head of the task forces involved in the infamous Ted Kaczynski UNABOM case, and the hunt for fugitive Eric Rudolph in North Carolina.

As a FBI supervisory special agent from 1988 to 1994, Turchie supervised FBI foreign counterintelligence efforts to neutralize hostile intelligence collection targeted at companies and U.S. government agencies in Silicon Valley. In 1990 he received the CIA's Outstanding Intelligence Collector's Award for his work as supervisor of an FBI squad that dismantled a nationwide hostile intelligence service's illegal network. Turchie also supervised the FBI's nationwide Foreign Counterintelligence Program, directed at the KGB's Line X (Scientific and Technology Branch).

Turchie said he looks forward to the transition from working directly in law enforcement to working with an employee-based program. SAFE is responsible for raising the awareness of employees on such matters as counterintelligence, foreign contacts, foreign travel, protecting business information, and counterterrorism.

Laboratory employees actually make the SAFE Program, Turchie said. The SAFE staff's function is to serve the Lab's employees. When an employee brings a concern to the SAFE Office, the primary responsibility is to protect the person's anonymity. Next, SAFE evaluates the input in order to protect employees from spurious allegations. These measures underscore SAFE's role as a service organization.

The SAFE Program has been existence since January 1986, when it was formed in response to a federal mandate requiring all government agencies within the intelligence community to establish their own counterintelligence programs.

DOE announces funds for Lab nuclear energy research projects

Energy Secretary Spencer Abraham announced this week funding for 13 new research projects — including two at the Lab — under the Nuclear Energy Research Initiative (NERI).

The funding will be used to pursue Generation IV nuclear energy systems, higher-performance fuels and fundamental nuclear science research. Researchers are from eight universities, eight national laboratories, eight private sector organizations, and include collaborators from six overseas research organizations.

"These programs support the goal of making nuclear power a key element of our nation's energy policy," Abraham said. "They are an investment in our energy future and in education and preparing the next generation of nuclear engineers and scientists for tomorrow's energy, medical and environmental challenges."

Lab principal investigators receiving the NERI awards are Wayne King of the Materials Science and Technologies Division for his project, "Random Grain Boundary Network Connectivity as a Predictive Tool for Intergranular Stress-Corrosion Cracking," and Bill Wolfer, also of the Materials Science & Technologies Division, for his project, "New Design Equations for Swelling and Irradiation Creep in Generation IV Reactors."

The NERI program supports innovative, investigator-initiated research and development to advance next-generation nuclear technologies. The department received 145 proposals and sub-

jected each to a rigorous peer review, selecting 13 for funding this year.

In addition to this new research, there are 54 projects currently under way; two NERI projects have been successfully completed — modular construction techniques for nuclear plants and development of temperature-resistant fuel cladding.

This year's NERI awards range from approximately \$200,000 to \$900,000 each for the first year of funding, and could total \$16.6 million over three years.

For more information on the Office of Nuclear Energy, Science and Technology's research and development initiatives, including abstracts on the NERI projects, visit the Website at www.nuclear.gov.

TAUSCHER

Continued from page 1

the Lab," Tauscher said. "We have decided that programs like [the] National Ignition Facility are important parts of our nuclear program, and for stockpile stewardship."

Tauscher did qualify her assurances, however.

"We have no idea what the defense budget will look like this year," she said. "Whether we agree with the president, we need to give him a chance to get his administration running, and

we need to help him work to get things accomplished."

Lab employees questioned Tauscher about preserving their ability to "do science" at the national labs.

"We work to balance the smaller departments with the 'big science' done here, like nuclear weapons work," Tauscher said. "Part of the way we're doing that is by showing people what a national treasure these labs are, and what great work is accomplished here."



JACQUELINE McBride/TID

Rep. Ellen Tauscher

tions also focused on energy and water supplies, and Tauscher noted that the energy problem stemmed from "bad deregulation" and would require several sources to create a solution. "We need affordable, safe, predictable power, and we can do that through a blended portfolio of water, wind and solar energy sources," she stated. "But if you think our power is bad, you should see the water situation in California." Tauscher

Several employee ques-

noted that several California lawmakers are already working together to create solutions for a future water crisis before it occurs.

"We're going to try and keep from repeating some of the same mistakes with water that we have made with power," she said.

Tauscher ended her session by encouraging employees to continue working, even in the face of possible budget cuts and energy shortages. "Know that we will fight for what [the Lab] needs," Tauscher said.

Employees invited to join walk launching cancer awareness campaign

Cancer survivors, supporters and employees are invited to participate in a symbolic cancer awareness walk. Employees are asked to assemble at 12 p.m.; the walk will begin promptly at 12:10 p.m. on Tuesday, June 5.

Starting at the lawn area between Bldg. 571 and Bldg. 663, the walk will proceed past the lake down South Gate Drive to the pool area. Cancer survivors are asked to wear red T-shirts, and will be given special event buttons. All participants in the walk will receive an event button.

The American Indian Activities Group (AIAG) will be selling hot dogs for \$2.00 and hamburgers for \$3.50 (both include chips). Complimentary bottled water and cookies will also be available. Displays and the campaign opening remarks will also be presented at the pool area.

This event is being sponsored by: the Lesbian, Gay, Bisexual and Transgender Association, AIAG, the Affirmative Action & Diversity Programs and Computation.

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Newsline Friday, June 1, 2001



News you can use

Come to the Family Safety & Health Fair June 27 **Pool Picnic Area** 11:00 a.m. to 1:30 p.m.



Administrators celebrate workshop



Organizers of the third annual Lab Administrative Workshop (from left Joyce Ray, Joni Schuld, Julie Cox and Barbara Rayval) present Schuld with a gift of appreciation for her role in originating the event. Attendees heard talks concerning the changing role of administrators, women's health and stress management, among other topics. The workshop was jointly sponsored by the NAI, C&MS and Safety, Security and Environmental Protection directorates.

Technical Meeting Calendar



PHYSICS & ADVANCED TECHNOLOGIES

"Evidence for the Leptonic Decay D - > mu nu at CLEO" by Ilya Narsky, Wilson

Laboratory. 10:30 a.m. Bldg. 211, room 227. (uncleared area). Contact: Doug Wright, 3-2347, or Pat Smith, 2-0920.



H DIVISION

"Optical Excitations of Semiconductors From the Exact-**Exchange Density-Functional** Theory," by Yong-Hoon Kim, Technische Universitaet

Muenchen, Germany. 10 a.m., Bldg. 319, room 205 (uncleared area). Contact: Giulia Galli, 3-4223, or Nancy Kliment, 2-3760.

DEPARTMENT OF APPLIED SCIENCE

"Information Technology Initiatives of the Future," by Sheila Vaidya, LLNL. 4 p.m., Bldg. 661 (Hertz Hall), room 7 (open area). Refreshments served at 3:30 p.m. for a "meet the speaker" session before seminar and at 5 p.m. after the seminar. Contact: Estelle Miller, 2-9787.

INSTITUTE FOR SCIENTIFIC COMPUTING RESEARCH

"ARIMA Time Series Dynamic Modeling and Forecasting for Adaptive I/O Prefetching," by Nancy Tran University of Illinois, Champaign-Urbana. 10 a.m., Bldg. 451, room 1025. Contacts: Terry Jones, 3-9834, or Leslie Bills, 3-8927.

INSTITUTE FOR SCIENTIFIC COMPUTING RESEARCH

"Efficient Shared Memory Support in NUMA-

Based Cluster Environments," by Martin Schulz, University of Munich. 2:30 p.m., Bldg. 551W, room 1400 (uncleared area). Contacts: Frank Mueller, 4-3642, or Leslie Bills, 3-8927.



PHYSICS & ADVANCED TECHNOLOGIES

"Clocking Hadronization in Relativistic Heavy Ion Collisions With Balance Function," by Scott

Pratt, Michigan State University Cyclotron Laboratory. 10:30 a.m., Bldg. 211, room 227 (uncleared area). Contact: Ron Soltz, 3-2647, or Pat Smith, 2-0920.

CHEMISTRY & MATERIALS SCIENCE

"Spontaneously Formed Surface Nanostructures," Neal D. Shinn, Sandia National Laboratories, Albuquerque. 11 a.m., Bldg. 235 (uncleared area), room 1090. Contacts: Lou Terminello, 3-7956, or Kathy Gonzales, 3-7023.

LIVERMORE COMPUTING

LC Customers' monthly meeting. 9:30 a.m., Bldg. 451, White Room (uncleared area). Contact: Teresa Delpha, taf@llnl.gov.



INSTITUTE FOR SCIENTIFIC COMPUTING RESEARCH

"Memory Profiling on Shared-Memory Multiprocessors," by Jeff Gibson, Stanford University. 10

a.m., Bldg. 451, room 1025. Contacts: Jeffrey Vetter, 4-6284, or Leslie Bills, 3-8927

ENERGY & ENVIRONMENT

"The Phase Out of MTBE From California Gasoline: The State's Next Challenge?" by Dean Simeroth, California Air Resources Board, and Gordon Schremp, California Energy Commission. 10:30 a.m., Bldg. 543 auditorium. Contacts: Dave Layton, 2-0918, or Karen Pangelina, 2-8645.



H DIVISION

"The Mantra of Shock Compression or High P/T with a Bang. I. Shock Experiments: an Overview," by Bill Nellis, LLNL.

10:30 a.m., Bldg. 319, room 205 (open area). Contacts: Frederick Streitz, 3-3236 and Lin Yang, 4-4153

DEPARTMENT OF APPLIED SCIENCE

Nanoscience Discussion Group. "Strength and Ductility of Bulk Nanocrystalline Materials," by Wayne King. 4 p.m., Bldg. 661 (open area). Contact: Alex Hamza, 3-9198, hamza1@llnl.gov or Miriam Rinnert, 2-7369,

rinnert1@llnl.gov



INSTITUTE FOR SCIENTIFIC COMPUTING RESEARCH

"The Aqua Approximate Query Answering System," by Phillip Gibbons, Bell Laboratories

10:00 a.m. Bldg. 451, room 1025 (uncleared area). Contacts: Ghaleb Abdulla, 3-5947, or Leslie Bills, 3-8927.

The deadline for the next Technical Meeting Calendar is noon, Wednesday, June 6.

Send your input to tmc-submit@llnl.gov. For information on electronic mail or the newsgroup IInl.meeting, contact the registrar at registrar@llnl.gov.

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Friday, June 1, 2001

News of Note



Labor, Energy to roll out occupational illness guidelines

An all-out effort by the U.S. Labor Department to meet the first deadline for the Energy Employees Occupational Illness Compensation Program Act has passed its first hurdle. Proposed regulations for the new law, which were due yesterday, appeared in the May 25 issue of the Federal Register.

"Our goal was to issue these proposed regulations as soon as possible, to start the process of collecting comments and allow us to begin processing claims when the statute becomes effective on July 31, 2001," said Secretary of Labor Elaine L. Chao. "This is the first step of many toward implementing

a very complicated compensation program. As part of our commitment to helping those workers who were harmed in service to our country, we want to make sure this program is launched correctly and on time."

The department has opened a toll-free number that affected workers can call with questions about the program: 1-866-888-3322. The toll-free number can also be used to request application forms. Updated information will be posted on the department's Website at www.dol.gov.

Between now and July 31, the Labor Department will host community meetings where

Public meetings set to discuss process

The department of Labor and Energy will hold two public meetings on the Energy Employees Occupational Illness Compensation Program Act, on Tuesday, June 19

A daytime session will begin at 1 p.m. and an evening session will begin at 7 p.m. Both meetings will be held at the Oakland Marriott City Center, 1001 Broadway in downtown Oakland.

The hotel is located near the 12th Street BART station; for driving directions, call the hotel at 510 451-4000.

The meetings are being held to present information on the Energy Employees Occupational Illness Program and give workers and concerned citizens the opportunity to ask questions about the program and the application /claims process.

workers can ask questions about the program, and at least nine resource centers run jointly by the Labor and Energy Departments will be opening near DOE facilities throughout the country.

The Department of Labor, which will administer compensation and medical benefits, has primary responsibility under the Energy Employees Occupational Illness Compensation Program Act, but three other departments share some responsibilities.

DOE's Office of Worker Advocacy will help workers file state workers' compensation claims and list facilities where covered workers were employed; the Department of Health and Human Services must establish guidelines for estimating radiation doses and the likelihood that they caused a worker's cancer; and the Justice Department is obligated to notify uranium workers eligible for benefits under the Radiation Exposure Compensation Act that they may also receive compensation under the energy workers' program.

Passed in October 2000, the Energy Employees Occupational Illness Compensation Program Act pays medical expenses and lump-sum compensation to employees who are seriously ill because they were exposed to radiation, beryllium or sili-

ca while working in the nuclear weapons industry. Compensation will also be available to survivors in certain instances, and to uranium employees who received benefits under the Radiation Exposure Compensation Act.

The interim final regulation published in the Federal Register establishes procedures for filing applications and determining compensation eligibility. Although the interim regulations provide 90 days for public comment, they will go into effect 60 days after publication so the Labor Department can begin processing compensation and medical benefit claims on July 31.

Lab lines up full slate of education programs for summer interns

By Stephanie Esposito

NEWSLINE STAFF WRITER

Starting this month and continuing through the summer, the Lab is offering a wide selection of educational and social activities for student interns and visiting faculty.

The activities are jointly hosted by the Lab's Science & Technology Education Program (STEP), Human Resources and the Institutional Education Committee (IEC).

"With the help of the IEC and STEP's manager for college internships, Barry Goldman, this year's summer program is designed to provide a broad set of lectures and tours to help students understand the Lab and its research programs at an institutional level," said Don Correll, STEP director.

Starting off the summer activities is a brown-bag lunch with Director Emeritus Edward Teller on June 12. Best known for his work on the development of the hydrogen bomb, Teller will be available to answer student questions on his life and scientific research.

"This is a great opportunity for students to not only meet Dr. Teller, but to also ask him any questions about his work, his career or anything else as he has offered in the past," Goldman said.

There are only 40 spots available for this event, so students are encouraged to register via the Web at http://education.llnl.gov/sbb by Wednesday, June 6, or contact Sharice Tippens, 2-6480, or Dolores Lambert, 4-6783, both of whom are members of the Lab's IEC.

Other events during the summer will include lectures, tours and socials, all of which provide students with information on research topics and pursuing higher education or careers.

According to Correll, the usefulness of each summer activity to the students depends on the individual interests of the student, but he emphasized that all the programs would be well worth anyone's participation, not just students or faculty.

"All of the programs are informative, especially with respect to decisions that students must make



to realize their education and career goals," Correll said.

For the second year in a row, the Lab will hold a panel discussion series starting on June 29. Altogether there will be three different panel discussions, which address this year's theme, "School to Career."

Panel topics and titles include: "Graduate Opportunities — Advanced Education /Fellowships," "Young Researchers — New Careers, New Challenges," and "Science Policy, Funding and Ethics." Panel members from various Lab fellowship programs will be participants in the panels. A moderator will initiate the discussion with questions directed at the panel, but will then be followed by a question and answer session

Another highlight of the summer programming is the Summer Student Research Poster Symposium scheduled for August 2. The symposium brings together all of the student interns and allows them to display and present all of the research that they collected while working at the Lab.

Like most summer interns, the students employed as interns within STEP are required to research a topic and present it at the end of the summer at the symposium. Both Correll and Goldman make a point to convince STEP's students that presenting their research is helpful in preparing for a job in their field, and it also provides them 'published' documentation that has been reviewed and released through the Lab.

Not only do the interns learn a lot from working at the Lab for the summer, but the Lab also learns a lot from the students. According to Correll, "The Lab really sees the value of having students participate in the Lab's research and appreciates how the students offer new views on research topics."

Correll refers to the summer employment program as a "broad institutional program where students are provided the possibility of future recruitment and collaboration with their Lab mentors."

Students might also be interested in taking the Lab's preparatory class for the Graduate Record Exam (GRE). "It's importance is similar to that of the SAT for high school students going on to college," Goldman said. "It's for students who are interested in going on to graduate school." The class, held on June 20, is free of charge and also offers a feedback class on June 27.

In order to attend any of the summer activities, students must go online to the Student Bulletin Board (SBB) to register. The Website can be found at education.llnl.gov/sbb. Students are also encouraged to go to the site and post their own social or weekend activities or check out the listings for roommates or apartments in the area.

Another useful feature of the SBB is the Student News List. This mailing list is open to students and faculty participating in summer programs, internships and other activities at LLNL. Subscribers are encouraged to use the list to network while at the Lab and to update their e-mail addresses when they leave. Announcements and other information of interest to visiting students are e-mailed to this list.

Students can contact Barry Goldman, 2-5177, with any questions or comments.



CLASSIFIED ADS

See complete classified ad listings at https://www-ais.llnl.gov/newsline/ads/

AUTOMOBILES

1999 - Mercedes ML320 burg/grey 42K, leather, air, PW, PD, heated seats, moon roof, Bose stereo, running boards, cell phn, fog lights, 50K warranty \$30.950 925-828-2927

1995 - Buick Regal GS, 3.8 lt V6 engine, full power package, moonroof, A/C, sport suspension. 124K highway miles. Excellent condition, \$6,500 / b.o. 925-735-6526

1990 - Pontiac Firebird, AT, V6, AC, new tires, brakes, radiator, water pump, battery, runs very good, \$2300 510-881-5444

1992 - Lincoln Mark VII LSC, 2 dr sedan, V8, fully loaded, incl. cell phone, blk ext/lght grey int, looks and runs great, 110,000 miles, \$6500 510-538-7444

1994 - Isuzu Rodeo, 5 speed, A/C, PS, Power Windows, Locks, Cruise Control, AM/FM Cassette, 96k highway miles. Clean, good condition. \$7,900/OBO. 925-449-5723

1991 - 735il BMW, fully loaded, great condition, recent work(brakes, water pump etc). Retail \$12,000 asking \$9,000/BO 925-373-4791

1995 - Jeep Laredo Set up to tow or be towed cd player am/fm radio cassette P/W P/S P/L 4-wheel drive \$10,950.00 925-447-8234

2000 - Honda Civic Ex, 2 dr, green, ex. warrenty, perfect condition. AC, CD, sunroof, pwr windows. Brand new! 7K miles. \$14,000. 415-370-0497

1990 - Lincoln Mark VII LSC, loaded, metallic red w/gray leather interior, 70K miles. Looking for quick sale. \$4,500. 925-447-9153

1988 - Jeep Cherokee Laredo 4X4: Loaded! 4.0L, A/T, P/W, P/L, A/C, Cruise, Tilt, Roof/Rack, Tow/Package, Premium/Sound, Alloy/Wheels, 83K, CLEAN! \$7,000.00 510-490-1410

1966 - Mercury - 66 Colony Park Station Wagon, 410 Engine. For sale by 3rd owner. \$2500 to a good home. 925-447-8753

1995 - Neon Highline, dark green, 90k, excellent condition. Air cond., CD, new ABS brakes. 4900\$. Available June 15. 925-833-8755

1992 - Honda LX Wagon, excl cond, orig. own.,140K m, KBB \$7250, asking \$6000 OBO 925-447-3618

1976 - 911 S BLK/BLK w/updated tensioners remote CD newer paint 83.5K miles ODO will email pics, NICE! \$9000 OBO 925-456-6427

1997 - Expedition,4x4, green. Excellent condition. 86,000 miles Ask \$17,000. Please call 925-606-1522

2000 - Honda Accord EX 2-Dr Coupe Very Clean, \$20,000 OBO AC, PS, PL, PW, CD, CC, Tilt, MNRF Custom Wheels, Lthr, ABS Call David M-F 925-216-5934

1985 - Honda Accord EX, excell cond, recent maint check, all power, \$10,500. 209-824-2141

AUTOMOBILE ACCESSORIES

Thule car rack components - like new - half price. Aero foot pack (#400) \$57.50, Aero bracket kit \$22.50, 4 keyed alike locks \$18.50 925-447-8753

Car tire ramps, 2 single, \$10,

metal. Box of misc car fluids (FREE). 925-456-7826

15 Inch TIRE for pickup or big car: 235/75/R15 very good \$20. Also: 16 inch 5 bolt RIMS fit Ford p/u, Jeep. 4 for \$80 925-447-7070

BICYCLES

Thule 2 bike carrier (#974) like new \$50, 925-447-8753

Mens mountain bike 21 speed excellent condition - asking \$100 - call after 3pm 924-443-0218

Mens NEW 26 inch bicycle 18 speed. \$200.00 firm. 925-443-

Mountain Bike DIAMOND BACK, 10 speed 16 inch frame size for child Good condition\$ 65.00 925-443-7752

Round-the-town kind of bike. Hybrid upright female bike with Zefal rack. Well used, needs minor adjustments. \$30 OBO. 925-456-7826

15x7 MAG WHEELS, four bolt, fit mustang, etc only \$60 for all 4. 925-447-7070

Trek 930 Mountain Bike, Mens black 16in frame, 26in trail tires plus 2nd set of street tires and wheels. Good condition \$210 OBO 925-449-6911

BOATS

Boat - 12 ft aluminum Valco deep V, rated 20 HP, 4 person; Gamefisher trailer, like new, used 4 times; weekends call 209-578-9832, \$700.00. 209-848-1375

Hobbie Cat 14 ft. sail boat with trailer \$899. 925-447-8753

71 Delta runabout, 17.5 foot, runs great, needs work on hydralic lift for outdrive. \$900 209-239-5625

14 ft fiberglass boat with canopy. 75 HP Johnson outboard motor and trailer. \$1150 925-443-5948

25ft Apollo Titan Fishing/Cruiser 1985 motor/ IO, 79 hull. Sleeps 4,galley,head. Galv Trlr, Great Salmon/Striper boat Delta,Bay or Ocean \$14,900 925-447-7455

ELECTRONIC EQUIPMENT

Become CISCO Certified! Two Cisco 2503 routers, CCNA books, cross over cables, lab assignments plus two hours of my (CCNA) time. \$1650.00 925-443-7729

TV - RCA XL-100 27in corner console \$40 925-449-1481

HiEnd home theater system \$400; PC & Monitor \$150; Many LP records, cassette tapes, 4 track tapes & quad player, make offer 925-736-7799

Free/OBO Apple ImageWriter II printer with paper & ribbons, Apple standard keyboard. 510-733-9802

JVC Graphic Equalizer, Receiver and turntable. Works great. 80.00 OBO 510-537-7222

Handheld GPS receiver (Magellan GPS 2000) with manual, strap, and original box. \$50. 925-454-8827

Intel PC-ATX(266/75), 64M, 4.3G, Viper330, CDROM, S3 Sound, 1.44, KB, mouse, etc. HP Deskjet 550, IBM VGA Monitor (OLD but works). \$150 925-449-7474

SONY Remote phone with answering machine, multiple mail boxes, hardly used. Comes with box&instructions. \$30. 925-456-7826

WANT TO BUY: old guitar amplifiers and unused vacuum tubes for hi-fi and guitar amps. 925-846-1459

GIVEAWAY

Free/OBO Apple ImageWriter II printer with paper & ribbons, Apple standard keyboard. 510-733-9802

Table Glass (Safety Glass) with smoothed edges. Size: 30 x 45. Please pick up. Call for directions. 209-599-7047

HiEnd sheet of white formica 925-736-7799

FREE. Moving boxes. Great for glassware etc. 510-582-2938

window,8ft x 4ft, insulated, dark bronze, alum. slider type. 510-481-1862

Free GE combination self cleaning oven and microwave unit. Both work fine. Remodeling victims. 925-447-9530

Encyclopedia set, excellent condition. Yours free come and get it! 925-447-5012

Guard kiosk, 8ft x 12ft, two doors, windows on all sides, lights and electrical. Free-You haul 925-706-2337

Tents - 9x9 Int Frame canvas & 6ft Nylon Umbrella 925-443-5565

Free, two Hamsters, Dwarf, Tame Born April 24 925-447-4521

Frosted glass tub/shower enclosure doors. Sliding doors only. Other hardware did not survive the remodel. 925-961-1089

Excellent condition Sterling Waveless Fiberfill Calif. King water mattress and liner. 925-455-4654

HOUSEHOLD

5 drawer chest, 9 drawer dresser, 60x30 desk. Hand made. All older with dark stain. \$120 or BO. Metal 4 drawer filing cabinet. \$25 or BO. 925-443-3511

Modern design 2-piece china hutch made by Lane. Lower piece has 2 drawers and 2 small cabinets, top piece has glass shelves, \$400.00. 925-455-4576

Modern walnut office desk (\$125), Sony 17in TV (\$110), leather layback chair with footstool (\$100) 925-736-7799

Dining Room Set-Table with 6 chairs. Excellent Condition. Walnut, must sell. \$100 925-373-9016

Refrigerator/freezer. Side-byside with ice-maker. Off-white. Good condition. \$135. 925-443-

11500 BTU Window air conditioner. One year old. \$225 or best offer. 925-292-1624

Kenmore: Washer/gas dryer, white, Ig. heavy duty \$300 pair; energy saver refrig. almond \$250; 7ft. white couch \$250 OBO - AII EXCELLENT cond. 925-447-0351

Six-piece bedroom set: twin bed, 2 dressers, night stand, desk w/bookshelf. Sturdy. Great for kids room. \$475. 925-449-1592

Jenn-Air heating unit with grill inserts for stove top. Like new. Unit has 4 prongs. \$30. 925-447-9530

Antique walnut display case with shelves. 4ft by 4 ft by 12 in. deep. Full height glass doors.

\$275. 925-606-1216

OFFICE CHAIR, black, high back, fake leather, hardly used, swivel/rolling legs, fixed/removable armrests. \$30. 925-456-7826

Sofa and matching love seat forest green and burgandy plad good condition no tears. \$300.00 for both. 925-455-9342

CARDBOARD BOXES, STURDY moving/storage: Big and Bigger: 40 for \$50, Wardrobes: \$6 925-548-4280

LOST & FOUND

FOUND - A pair of eye glasses. Wire rimmed with brown plastic. Found around B439 on a shipping pallet. 925-447-3095

Lost earing, gold flower with perl. Could be in street, on sidewalk or near B132. Call x2-8942. 925-462-8811

MISCELLANEOUS

Loc Blocs (from Entex), over 1500 pieces and instructions to assemble a space shuttle, castle, or misc buildings. \$25, call 925-447-2687

TRAMPOLINE, 7ft round, 2ft high, 2 yrs old. For less than 200 lb person. Good for kids and rehab exercises. \$50.925-456-7826

OAK As Vs Anaheim Angels -Fireworks game -July 3/01. I have 4 tickets @ \$15 each includes food voucher. Sec 108, Row 31, Seats 4-7. 925-447-1428

Patio table - white w/tempered glass top, approx size 38in x 60in. \$35 925-449-1481

MARCY Work out equipment full body. Very good condition \$200 or best offer. 209-599-7047

Legos set for kids, many pieces and board \$45, Motorola Mobile (analog) phone+charger \$25 925-736-7799

2 SF Giants Tickets Giants vs Dodgers JUne 27 4:05 PM \$63.50 925-828-3044

Queen size wood headboard/shelf unit with built in sliding drawers; functional and attractive; \$40 OBO/Craftsman push lawn mower 1 yr old \$30 OBO 925-455-4208

Multi family garage sale. Saturday June 2. 8:00 am. 2859 Superior Dr, Livermore 925-447-4364

Ford 9N Tractor with 8N engine. New/rebuilt electrical system. Three point hitch, power takeoff. Runs well. \$1850. 925-443-5948

Kids toys, duplos, doll houses, books. Reasonable offers accepted. 925-443-1582

two man posthole digger,4 &8 inch augers, with homemade water sleeve & drill for deep drilling. 209-836-0631 \$175.00 209-836-0631

Size 10 skirt from Bebe, new, never worn, tags attached. White, short, very flattering, not see-through! Paid \$88 three weeks ago, asking \$40 obo. 650-576-3829

MOTORCYCLES

1987 - CR-125, Good Trail/Motorcross Bike -Accessories included - Helmet, Chest Protector, Knee Pads, Pants, Goggles, Pants and Jersey - Ask for Brett 925-243-0228 Cobra Boulevard exhaust pipes for a 1996 Honda Shadow motorcycle. Excellent condit. Please make offer. 925-829-2581

1984 - Honda Interceptor V45 motor cycle. 750cc. Good commute bike. \$1500 925-443-5948

2001 - Suzuki Bandit 1200S. Perfect, ~2500 miles. Maroon, RKA saddlebags, other extras. A great standard style sport touring machine. \$6750/offer. 925-606-6515

PETS & SUPPLIES

1 year old female dog, free to a good home. We moved and do not have the room she needs. Black Lab mixed with smaller herding dog. Very friendly. 925-838-4150

SIMCO western pleasure saddle; 15-1/2 seat \$300.00 209-835-6486

Kittens born April 3. Free to a good home. 925-548-5205

Complete Reef tank setup, 55 gal, oak stand and lid, reef lights, skimmer, pump, all supplies needed for reef or normal set up. \$500 or BO. 925-838-0546

Wanted: Horse to sponsor. Western pleasure/trail riding. Experienced rider. Liv/Danville area. 925-443-3093

RECREATION EQUIPMENT

Aerobic Stair Stepper - hardly used. \$325 new. Will sell for \$120 or BO. 925-443-3511

Pool Table. Approximately 4 x 8 ft. Balls, cues, rack and cover. \$475 925-443-5948

PORTABLE HOT TUB. HotSpot by HotSprings. 5yrsold, 300gal, 7ftround, cover, 3 prong plug, new pump. Energy use low! \$800 OBO. 925-456-7826

Coleman lantern plus 3 gal white gas, all for \$20 925-449-

PROTEAM-HUFFY adjustable 7-10 feet portable, fully assembled Composite Basketball board with rope hoop priced to sell \$125 925-866-1477

Ping-Pong table-- needs sanding. \$50.00. You haul it. 925-447-5359

RIDESHARING

Express your commute, call 2-RIDE for more information or visit the web site at http://www-r.llnl.gov/tsmp/ for more information

San Francisco - Looking for people to rideshare/carpool from SF once or twice a week 415-861-8911, ext. 3-6835

Modesto - Vanpool needs 1 rider. Leaves from CrossRoads Mall (Carpenter and Kansas) at 6:40 am. Leave Lab 4:45.Cost \$120/month. 209-576-0217, ext. 2-7459

Ripon - Riponite to start a 4 person rotation carpool, cutting commute cost with less stress scenic country drive. Ask for Lee 209-599-7914, ext. 4-0665

Modesto - Modesto-Carpool needs 1 or 2 riders, Leave Modesto 6:00 to 6:30AM Contact Dan 209-522-7136, ext.

Modesto - Space available on 14 passenger luxury vanpool, 8-4:30 schedule, \$113/month. 209-521-9047, ext. 2-5177

Due to space limitations, Newsline may withhold ads that have already run. They will still appear on the Web.

Keep your foot in the door

Retiring soon?

We need your help!



Want the flexibility of being retired, but still work part time?

Want to supplement your income by escorting at Lawrence Livermore Lab?

Does being a security escort sound like something for you?

If you answered "Yes" to any of the above questions, then call

Johnson Controls, 925-960-0369.

INTERNAL TRANSFER OPPORTUNITIES

Tag	Requisition	Classification	<u>Title</u>	Organization
CO	2291	103.1	Senior executive secretary	Computation Associate Director's Office
ВО	2193	105.4	Laboratory archivist	Business Services
PM	2199	196	Executive staff member	Procurement & Materiel
EE	2192	200	Electro-optics engineer	Electronics Engineering
CO	2239	220	Pos doc research staff member	Center for Applied Scientific Computing
EZ	2276	220	Post doc research staff member	Energy & Environment
NF	2232	220	Post doc research staff member	National Ignition Facility Programs
BS	2254	225	Biomedical scientist	Biology & Biotechnology Research Program
DT	2233	270	Associate program leader	Defense & Nuclear Technologies
PT	2045	270	Physicist	Physics & Advanced Technologies
PT	2046	270	Physicist	Physics & Advanced Technologies
PT	2047	270	Physicist	Physics & Advanced Technologies
ΑI	2223	285	Computer scientist	Administrative Information Systems
CO	2235	285	Computer scientist	Computer Applications Organization
CO	2249	285	Computer scientist	Computer Applications Organization
CO	2250	285	Computer scientist	Computer Applications Organization
ME	2204	339.2	Senior engineering associate	Mechanical Engineering
PE	2139	339.2	Senior engineering associate	Plant Engineering
ΑI	2228	405.3	Administrative specialist III	Administrative Information Systems
EE	1710	405.3	Administrative specialist III	Electronics Engineering
AD	2187	405.4	Administrative specialist IV	Administration
CO	2179	405.4	Administrative specialist IV	Scientific Computing & Communications
ME	2251	405.4	Administrative specialist IV	Mechanical Engineering
NA	2222	405.4	Administrative specialist IV	NAI
PT	2231	405.4	Administrative specialist IV	Physics & Advanced Technologies
EZ	1173	502.2	Scientific technologist	Energy & Environment
EE	2227	504.3	Senior technologist	Electronics Engineering
EE	2217	531.1/2	Technician	Electronics Engineering
EE	2218	532.2	Senior fabrication technician	Electronics Engineering
EP	1950	538.2	Facility support coordinator	Environmental Protection
PE	2188	823.1	Carpenter	Plant Engineering
PE	2215	824.1	Industrial electrician	Plant Engineering
PE	2216	824.1	Field electrician	Plant Engineering

See complete classified ad listings at https://www-ais.llnl.gov/newsline/ads/

Oakland - Seat available in Oakland carpool. Route is along 1580. Present stops are Keller and 164th. Work schedule is 8:00am-4:30pm. 415-922-5360, ext. 4-3253

SERVICES

Home Managing: house cleaning, laundry, shopping, errands, yard work, mail, petsitting. Additional services upon request. 925-443-3283

Time to paint. Interior/Exterior, excellent workmanship, good prices. 18 years experience. No job to small. 510-537-7222

PARENTS troubled by TEEN behavior? What to do now, before too late? Free info on ToughLove, & Residential Treatment Facilities. (LLNL Meeting) 925-447-7070

SHARED HOUSING

LIVERMORE - For Rent- Lg room w/private entrance, microwave/refrig, \$575/mo + dep, 1/4 utilities 925-201-3402

Livermore - 1 room, shared bath, pool, kitchen privileges, washer/dryer. \$550.00/mo. plus 1/3 of the utilities. 925-245-0291

TRUCKS & TRAILERS

1986 - Full Size Chevrolet Blazer Silverado K5 4X4 Looks good and runs Great \$3800 925-373-0626

1976 - Ford F250 3/4 P/U. 6 cyl, extended cab, dual tanks. Hi milage but runs good. \$1000.00 or B/O. 209-577-5805

1998 - Blk Chevy S-10 Blazer, 2-

Dr 6-Cyl./4.3 Ltr Drk Gry/Blk Int. 4WD W/ZR2 Susp. 90K Miles PW/PL & AC; Sunrf, AM/FM Cass. w/CD Tow Pkg \$19,000 OB 209-679-4140

1973 - King Horse Trailer. Two axel, two horse trailer with electric brakes. Newer floor pads. \$1250 925-443-5948

1999 - Dodge Durango 4X4 Grey 65,000 commuter miles. New tires and all service receipts. \$20,000. Located in Manteca (209)470-0928 or 209-239-9523

1992 - Ford Ranger XLT 6-Cyl 5spd 2-WD AC/PS/PW/PDL/ABS, cruise, AM/FM St cass, rear flip seats, shell/cap, tow Pkg, Alloy wheels \$4200 209-544-2236

1997 - Dodge Ram 1500 Ext.Cab. Emerald Green, A/c, stepbars, bedliner, tiedowns, tint, sliding window, 81K mi, Asking 13K make offer 925-634-2798

VACATION RENTALS

SOUTH LAKE TAHOE - 3 Bedroom 2 Bath Chalet, nicely furnished, all amenities, Homeowners park w/Lake, tennis etc., Great for Families!!, Reserve Now for Summer! 209-599-4644

Capitola - 3 bedroom 1 bath house near beach. Furnished with amenities Week of July 29 to Aug. 4 Available 925-447-3611

Maui, HI - Kahana Reef oceanfront 1BR/1BA condominium. Beautiful two-island view, oceanside pool, and BBQs. Low LLNL rates for year-round reservations. 925-449-0761

WANTED

Wanted 70cc dirt bike for 10 year

Classified ads

Wanted: Slightly used reclining exercise bike. 510-537-7222

old 925-449-1340

Bed Frame for twin/single bed, headboard if possible in good condition. Please call if you are willing to sell 925-634-8134

Housing for visiting scientist, family (husband and 8 year old daughter) June 25-July 25. Looking for low-cost sublet or house sitting situation. 510-538-1889

WANTED: Camper Shell to fit 1991 Toyota Standard Size Pickup 510-581-4609

Lost telephone number for custom made cabinets and entertainment center. 209-892-6186

Wanted - Kayak: single, sit on top like the Ocean Frenzy. 209-521-9047

East Avenue Middle School parents: help keep the MathCounts competitive mathematics program alive next year! (evenings). 925-455-9567

Breadmaker, in good working condition. 925-443-0743

Newer model Power Wheels Barbie Jeep, or boys Jeep Wrangler. Both must seat 2 w/12 volt battery. Will pay reasonable price depending on condition. 209-833-1963

Unused RV storage space near Livermore area? I will pay you to store our 26ft long, 8ft wide trailer. Call 6PM to 9PM. 925-373-9608

Someone to install DISH Network sattelite dish and hook up surround sound/DVD/VCR 925-449-6963

Full size cassette transcriber wanted, older foot pedal type

preferred. 925-454-1526

Vacation rental (or Timeshare Exchange) in Venice, Italy or nearby area. October 13-21. Leave message with price. 510-997-0502

VW Bug between 1964 and 1970. Running or not. Available mornings any day between 8 & 10 am. 209-825-

Wanted camper shell for 85 Nissan PU truck 925-443-4350

Need some extra \$\$\$? willing to work Saturdays once/twice a month? Looking for longterm helper for home repair /improvement/ upkeep. \$8-12/hr 925-243-1033 Wanted-VW 1600 dual port motor, any cond. reasonably

priced. Ask for John. 209-599-

Early 80s cheap Yamaha or Honda or other reliable mortorcycle for in town commute for student. Running or not. Must not have serious problems. 925-933-8233

Wanted - Large, sturdy doghouse in good condition. 925-449-8035

BioStack Compost Bin. Tried it and did not like it, or have one in the garage you are not using. Recycle it to me. 925-456-5874

Guidelines

Newsline is not responsible for any errors contained in the classified ads. It is up to the employee to proofread his or her ad to make sure it contains the correct data, including the phone number.

Employees are reminded that only car- and vanpool ads may contain Lab extensions. E-mail addresses are not allowed.

Due to space limitations, Newsline cannot run ads that are submitted in all capital letters. "Personals" ads are not permitted either.

Employees may submit one ad per category, but may not include the same ad in more than one category.

Ads may only be submitted through the Employee Ads Web Services site https://www-ais.llnl.gov/newsline/ads/

Employees are responsible for ensuring the content of their ad is accurate.



The back page

PLAGUE

Continued from page 1

Keim said of the disease that occurs primarily in the spring and summer months in Arizona and New Mexico. "We had the Livermore detection methods ready to go."

Keim's team went into the field late Thursday and picked up samples of fleas, which are a primary carrier of plague, at six locations within about a one-and-a-half mile area. Using the Lab DNA signatures for plague, the team found four positive samples by midnight, he said.

"The Livermore detection system worked well," Keim said. "For us, it was quick and allowed us to conclude that plague was present."

Once the NAU researchers discovered positive findings of plague, they alerted the Arizona Department of Health Services, which worked with the Coconino County Health Department to issue a press release warning Flagstaff area residents of the plague outbreak in the rural area.

Then Sunday, state Health Services employees and county health workers "dusted" the prairie dog burrows where plague had been detected with

insecticide powder to kill the infected fleas, said David Engelthaler, the Epidemic Detection and Response Program coordinator for the Arizona Department of Health Services.

Arizona normally has one or two cases per year of humans who become infected with plague and a handful of people have died from the disease during the past two decades, Engelthaler said.

If promptly treated with antibiotics, the survival rate of the disease is nearly 100 percent, Engelthaler noted. However, if the disease's symptoms — of high fever or heavy nausea — are not diagnosed, a single flea bite can kill an adult.

While infected flea bites of humans represent the primary transmission method for plague, the disease can also be contracted by contact with infected blood or tissue of sick animals or a cat coughing on a human, Engelthaler said.

The old testing method involved injecting a flea sample suspected of having plague into mice. If the mice became sick and died, they were then checked with a fluorescent antibody for plague.

With the Lab's real-time DNA detection system, tiny samples are placed in thin test tubes and

undergo a series of rapid temperature cycles. Optical instruments acquire a fluorescent signal from the solution, which is recorded on a computer and translated onto a graph.

In addition to McCready, two other Lab biomedical scientists, Gary Andersen and Lyndsay Radnedge, helped to develop the DNA signatures, assays and screenings for plague. Their work was performed in collaboration with the Atlanta-based Centers for Disease Control.

The Livermore DNA signatures were submitted to the CDC last summer, according to McCready, and are in the process of being made available to U.S. public health laboratories through the CDC

Additionally, the Lab assays for Yersinia pestis, the bacteria that causes plague, are now undergoing Food & Drug Administration approval for use in determining if humans have contracted the bacteria.

DNA signatures for other pathogens, such as Bacillus anthracis (the bacteria that causes anthrax), are being developed by researchers from LLNL, Los Alamos National Laboratory and CDC.

FORKLIFT

Continued from page 1

trim. The battery powered transporters maneuver about NIF like graceful sea lions gliding among the coral reefs. "They can also move sideways, much like a land crab," says Ray Abounader, lead Engineering Technician for the transporters.

Another special feature of each laser-guided transporter is that it can supply AC (alternating current) power to the canisters it carries. The vehicles are completely electric because electrical actuators are cleaner than hydraulics. The vehicles also carry their own utilities — compressed air, vacuum system, and "clean air" gas. The latter is used to purge the environment in these mini clean room canisters being transported and to drive some of the pneumatics in the canisters.

The transporters also need power to open their lids and insert their LRUs into NIF. "There is constant communication between the transporter's computer control system and the canister's computer control system," says Steve Yakuma, lead engineer for NIF's Transport and Handling Group. One Traffic Management Computer controls the motion of all three transporters in the high bay to maximize efficiency.

The transporters carry canisters used to install the LRUs that are a variety of shapes and sizes. Inside the canisters are amplifier glass slab assemblies, flashlamp assemblies, mirrors, and other optical assemblies.

The Transport & Handling Group designed and oversaw the fabrication of the transporters and canisters and now they're conducting tests on the NIF site intended to demonstrate that the systems are meeting their functional and cleanliness requirements prior to installing LRU's next year.

"Our goal is to put the equipment, as well as the installation team, through its paces and show that we're ready to go "says Gina Bonanno, associate project manager for NIF Assembly, Installation and Refurbishment.

"By testing in the field we are encountering things that might not be identified in a test environment. This gives us the opportunity to address issues early, prior to beginning the installation process. The results to date are very encouraging, we're demonstrating that the systems are working as designed," says Bonanno.

The LRUs are built in the Optics Assembly Building, a Class 100 clean room (no more than 100 particles greater in size than five microns per cubic foot of air). "Once the LRUs are installed in the clean canister, they can be transported and inserted into the clean NIF beamlines," says Bonanno.

How it all began

Three years ago, AGV Products won the bid to create the unique forklifts and began working

with LLNL engineers to custom design the biggest, cleanest robots necessary to transport and install the LRUs that comprise NIF.

The first transporter, Enterprise, was built and tested and resulted in a few improvements in the second and third transporters, Voyager and Defiant.

AGV Products, Inc. builds automated guide vehicles (AGVs) for a range of applications and is the only supplier of three guidance systems — laser, inertial and wire — according to Matt Herrstromer, president of AGV Products, Inc. Automated guide vehicles are used by General Motors to build trucks and by Boeing to build airplane wings.

A sign in the high bay of Bldg. 432, where the laser-guided transporters are tested, proclaims, "NIF Operations, to Ignite and Beyond." The laser-guided transporters may not reach "to infinity and beyond," as the character Buzz Lightyear proclaims in the children's movie "Toy Story." However, the transporters are playing a key role in cleanly installing the optics that comprise NIF, and this powerful laser system is designed to ignite its targets and provide scientists with knowledge beyond what we know today regarding the evolution of our sun and the stars.

SURVEY

Continued from page 1

- 1. If you already have Internet Explorer 4.0 or higher on your system, use it to access the survey.
- 2. Adjust your security settings in Netscape Communicator by following these instructions:
- In Netscape Communicator, under the Communicator menu, select Tools and then Security Info.
- On the resulting Web page, click the Navigator link in the left column and then select Configure SSL 3 from the right pane.
- In the subsequent pop-up menu, remove the check marks from the following two options: "RC4 encryption with a 56-bit key and a SHA-1 MAC" and "DES encryption in CBC mode with a 56-bit key and a SHA-1 MAC."
 - Click OK twice to finish.
- 3. Upgrade to Nescape Communicator v.4.7.5 Go to http://snd.llnl.gov/soft/esdserver.html and scroll down to the Netscape Communicator v.4.7.5



link, click on it, and then follow the on-screen instructions to down load it.

If you still cannot access the survey after trying these steps please contact the Systems & Network Department help desk at 4-HELP or your local computer support person.



UC-LLNL PO Box 808, L-797 LIVERMORE, CA 94551-0808